Applicant: Chien-Jen Chang Attorney's Docket No.: 14675-013001 / 0632-9057-US

Serial No. : 10/764,241
Filed : January 23, 2004

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Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Previously Presented) A method for dynamic gamma adjustment of an LCD having a data driver and a gate driver, comprising the following steps:

detecting a brightness data of a data signal provided by the data driver;

classifying the brightness data into a predetermined brightness group;

providing a group of predetermined gamma signals according to the predetermined brightness group;

selecting a gamma signal from the group of predetermined gamma signals according to the brightness data; and

providing the gamma signal to the data driver.

- 2. (Original) The method as claimed in claim 1, wherein the brightness data represents a gray-level distribution of a single frame.
- 3. (Original) The method as claimed in claim 1, wherein the brightness data represents an average gray-level distribution of a plurality of frames.
- 4. (Original) The method as claimed in claim 1, wherein the gamma signal enhances the brightness resolution of a low gray level when the brightness data belongs to a low gray level.
- 5. (Original) The method as claimed in claim 1, wherein the gamma signal enhances the brightness resolution of a high gray level when the brightness data belongs to a high gray level.

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6. (Original) The method as claimed in claim 1, wherein the gamma signal adjusts a

voltage level of the data signal presenting a predetermined gray level.

7. (Original) The method as claimed in claim 1, wherein the data signal is a digital

signal.

8. (Previously Presented) A circuit for dynamic gamma adjustment of an LCD having a

data driver and a gate driver, comprising:

a brightness sampling circuit for detecting a brightness data of a data signal provided by

the data driver;

a brightness classifying circuit for classifying the brightness data into a predetermined

brightness group;

a plurality of gamma voltage outputting circuits respectively providing a predetermined

gamma signal; and

a gamma decision circuit for selecting one of the gamma voltage outputting circuits to

provide the corresponding predetermined gamma signal of the predetermined brightness group to

the data driver.

9. (Original) The circuit as claimed in claim 8, wherein the data signal is a digital signal.

10. (Original) The circuit as claimed in claim 9, wherein the brightness sampling circuit

obtains the brightness data by analyzing the digital signal.

11. (Original) The circuit as claimed in claim 8, wherein the brightness data represents a

gray-level distribution of a single frame.

12. (Original) The circuit as claimed in claim 8, wherein the brightness data represents an

average gray-level distribution of a plurality of frames.

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13. (Original) The circuit as claimed in claim 8, wherein the gamma signal output by the

gamma decision circuit enhances the brightness resolution of a low gray level when the

brightness data belongs to a low gray level.

14. (Original) The circuit as claimed in claim 8, wherein the gamma signal output by the

gamma decision circuit enhances the brightness resolution of a high gray level when the

brightness data belongs to a high gray level.

15. (Original) The circuit as claimed in claim 8, wherein the gamma signal output by the

gamma decision circuit adjusts a voltage level of the data signal presenting a predetermined gray

level.

16. (Previously Presented) The method as claimed in claim 1, wherein the brightness data

is detected by sampling only a portion of a single frame.

17. (Previously Presented) The method as claimed in claim 1, wherein the brightness data

is detected by sampling several frames.

18. (Previously Presented) The circuit as claimed in claim 8, wherein the brightness data

is detected by sampling only a portion of a single frame.

19. (Previously Presented) The circuit as claimed in claim 8, wherein the brightness data

is detected by sampling several frames.